

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:

Mike Sage

Application No.: 09/736,649

Filed: December 13, 2000

For: SYSTEM AND METHOD FOR  
IMPLEMENTING A WIRELESS  
NETWORK IN A SERVICE CENTER  
FOR GENERATING A REPAIR  
ORDER

Examiner: Gerald J. O'Conner

Group Art Unit: 3627

Confirmation No. 8281

November 13, 2007

Costa Mesa, California 92626

**APPEAL BRIEF PURSUANT TO 37 CFR § 41.37**

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Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Appellant appeals the decision of the Examiner finally rejecting all of the claims pending in the present application, namely claims 1, 4-5, 7-9, 13, 32-33 and 37-43. Appellant's Notice of Appeal was filed on June 11, 2007. The fee required under 37 CFR §41.20(b)(2) was previously submitted.

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## **I. REAL PARTY IN INTEREST**

James P. Lezie is the real party in interest in the subject application by the virtue of an assignment from Manhattan Projects.Net LLC (recorded on July 19, 2005 at reel 016282, frame 0607). Manhattan Projects.Net LLC received an assignment from inventor Mike Sage (recorded on December 13, 2000 at reel 011373, frame 0046).

## **II. RELATED APPEALS AND INTERFERENCES**

No other appeals or interferences are currently known that will directly affect, be directly affected by, or have a bearing on the decision to be rendered by the Board of Patent Appeals and Interferences in the present appeal.

## **III. STATUS OF CLAIMS**

Claims 1, 4-5, 7-9, 13, 32-33 and 37-43 are pending in the application.

Claims 1, 4-5, 7-9, 13, 32-33 and 37-43 stand rejected under 35 U.S.C. §103(a). The claims stand and fall together.

## **IV. STATUS OF AMENDMENTS**

Applicant's after Final Amendment has been entered for the purposes of this Appeal. (See Office Communication mailed April 2, 2007.)

## **V. SUMMARY OF CLAIMED SUBJECT MATTER**

The claimed invention is directed to generating a repair order ("RO") after submitting a vehicle-specific menu of services to the customer. (See page 2, lines 5-10.) The method of Claim 1 includes the steps of scanning and wirelessly transmitting a vehicle identifier (page 4, lines 2-7) and the current vehicle mileage (page 8, lines 11-13) to a network server. A personal digital assistant (PDA) or any other portable device can be used to implement this

step. (See portable device 100 at Fig. 1.) The vehicle identifier and the current mileage are then transmitted over a wireless communication link (*e.g.*, communication link 204) to a wireless network server (see server 202 at Fig. 2). In one embodiment, the wireless network server communicates with dealer management system (210, Fig. 2) and manufacturer host-system (220, Fig. 2).

Next, a dataset associated with the vehicle is retrieved by querying a database as a function of the vehicle identifier. (See step 306, Fig. 3.) As recited in Claim 1, the data set includes a vehicle service history and a service list and the service list includes service items as a function of the vehicle mileage, history, recommended maintenance, factory recall and available service campaigns. (See page 6, line 23 to page 7, line 10.) This step is illustrate at Fig. 2, for example, where wireless network server 202 communicates with dealer management system 210 and manufacturer host system 220 to obtain various data available for the vehicle. The information from databases 210 and 220 can be merged into one report (see page 7, lines 18-20) to form a data set of suitable services customized for the vehicle given its age, mileage, etc.

The data set is then transmitted back to the PDA and presented to the customer. (See step 310, Fig. 3.) The customer can then select one or more specific service items from the data set according to its needs, budget and circumstance. (See page 8, lines 17-18.) The selected service items are then used to form an RO.

## **VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL**

Claims 1, 4-5, 7-9, 13, 32-33 and 37-43 stand rejected under 35 U.S.C. §103(a) as allegedly obvious over Patent No. 6,609,050 B2 to Li in view of Patent No. 6,370,454 B1 to Moore.

## **VII. ARGUMENT**

### **REJECTION UNDER 35 U.S.C. §103(a)**

#### **A. References Fail to Disclose or Suggest Each and Every Element of Claim 1**

Applicant's invention enables expedited service at a dealership's service bay by providing the service manager comprehensive information not just about the state of the vehicle but also about all other service requirements, recalls and promotional campaigns available for the vehicle. This is accomplished by identifying the vehicle at the services bay and wirelessly transmitting the vehicle's identifier and its current mileage to a network server in communication with the dealer management system and the manufacturer host system.

The data from the different systems are merged together to form a customized dataset of available services for the vehicle. The data set is then transmitted to the service manager's PDA and ultimately submitted to the customer while the customer is still at the service bay. Upon reviewing the available service list, the customer can select one or more services commensurate with its needs and budget. The service manager will then generate a repair order based on the customer's selection.

Applicant's claimed invention realizes several advantages. First, the invention provides fast and efficient customer service, resulting in a service menu for the customer's vehicle even before the customer leaves the service bay.

Second, the data set of services (interchangeably, the service menu) is tailored for the customer's vehicle. That is, the service menu identifies all possible services, recalls, manufacturer and/or dealer promotions tailored specifically for the vehicle. The conventional methods are limited in that they either fail to provide a service menu or they provide a service

menu limited to the manufacturer's recommended services. In contrast, the Claimed invention provides service menus that are customized for each vehicle.

Finally, the service menu contemplated by the disclosure enables the customer to select only services that match its budget and needs. Conventional methods allow customer to opt in or out of package services (e.g., the 20,000 mile service package) which bundles many service items in one package. Applicant's invention enables service packages tailored closely to the customers' needs and the customer may optionally select specific service items from the service menu.

The references, taken individually or in combination, fail to disclose or suggest the unique features of Claim 1.

The reference to Li is concerned with providing an efficient pre-diagnostic and write-up process at the repair station. See Col. 1, lines 55-56. According to Li the service write-up process is prolonged because of the manual collection of service information and vehicle symptoms from the customer. Li proposes to eliminate the delay by providing a computerized pre-diagnosis process which can be completed by the customer prior to arriving at the repair facility. Thus, the customer can fill out pre-diagnosis information from a remote computer and allow the server to diagnose the problem before scheduling a service appointment.

Li's system includes a dialog manager for collecting vehicle performance information from the user, analyzing the service information and determining a diagnostics based on the information. More specifically, Li discloses a so-called "case based reasoning" module for analyzing the vehicle's service information to determine a diagnosis. See the paragraph

bridging cols. 1 and 2. The case based reasoning and the diagnosis process can be done by the customer from a remote location or by the service manager at the repair facility.

Li shows the operation of the case based reasoning module at Fig. 2. Referring to Fig. 2, the case based reasoning module 30 includes a diagnostic module 31 for analyzing the service information with a symptoms database 90 and a cases database 91. The symptoms database includes automotive symptomatic information such as “brakes make a grinding noise” or “idle speed it too high.” See Col. 4, lines 1-6. The cases database 91 contains information regarding case studies of automobiles which exhibit the symptoms. The dialog module 32 communicates with the client to ascertain the vehicle symptoms.

Once the pre-diagnostics process is completed, the repair processing begins. Fig. 3 shows repair processing module 40 which includes warranty analysis module 41, service dealer selector module 42, scheduler module 43, technician selector module 44 and vehicle loan modules 45. Modules 41-45 are configured to assist the customer select a dealer, a technician, reserve a loaner vehicle and schedule the service. See Col. 4, lines 25-55. Fig. 7 shows a customer user interface 20 where the customer can enter data 200 to start the diagnosis process. If the customer activates a computer-guided diagnostic system (button 203, Fig. 7), the software will display the user interface of Fig. 8, where the customer can check off additional information and provide further symptoms.

The user interface of Fig. 9 provides procedures for furthering the diagnostic process. Once a diagnosis has been made, the user interface of Fig. 10 provides a textual explanation of services that may be performed at the repair facility based on the customer’s description. See Col. 5, lines 46-49. The user interface of Fig. 11 tells the customer whether the repair is covered by a warranty and the user interfaces of Figs. 12-14 assist with scheduling the

service. Once at the repair facility, the user interfaces of Figs. 15-16 assist the customer to obtain a loaner car, and thereafter Figs. 17-28, enable the customer to track the repair process.

As stated, Li's primary focus is providing an efficient diagnosis of the vehicle's problems before the customer arrives at the repair facility. Li is not concerned with services beyond the immediate repair of the vehicle. Consequently, Li is neither concerned with, nor contemplates providing a customized service menu for the customer's review and selection. Referring to Claim 1, Li fails to disclose or suggest, among others:

- obtaining current vehicle mileage with a personal digital assistant (PDA);
- retrieving a dataset associated with the vehicle by querying a database as a function of said vehicle identifier, said data set having a vehicle service history and a service list, said service list having a plurality of service items as a function of a mileage, the vehicle history, recommended maintenance, factory recall, and available service campaigns;
- transmitting said data set to the PDA;
- displaying said selected service items on the PDA; and
- obtaining user requested service items from said data set wherein the user requested service items are a subset of the data set.

The secondary reference to Moore fails to cure these deficiencies. Moore is directed to using sensors for real-time monitoring of the vehicle's operation and communicating potential problems to a service center. At Fig. 1 Moore shows vehicle 100 having a data port 102 and radio link 104. Various sensors in vehicle 100 communicate through radio link 104 to PDA 106, computer 108, or server 116. The vehicle may connect automatically and directly to server 116 without user intervention.



Server 116 can access information sources 118, 120 and 122. Information sources 118 and 120 contain data including manufacturer's recommended service intervals, approved types of servicing, parts, fluids, etc. See Col. 8, lines 63-66. Thus, vehicle 100 may contact server 116 to obtain information and send notification of recommended services to user through email, fax, etc. See Col. 9, lines 10-15.

According to Moore, vehicle 110, PDA 106 or computer 110 can access the network to determine availability of the closest service station or dealer. "Once availability is established, the software composes a message including optionally type of service, estimated time for repairs, cost, time and date, and requests and appointment on the driver's or user's calendar." Col. 9, lines 30-38. Moore also discloses that the software can review the driver's calendar to identify available dates and times and then searches for corresponding availability at the repair facility. Once a suitable time is identified, the server suggests the time and place of the repair in a message to the driver. The driver will then have the option of scheduling the repair online. See Col. 9, lines 41-49.

Moore does not contemplate the problem addressed by Applicant's disclosure much less provide a solution thereto. Specifically, Moore is concerned with identifying problems with the vehicle and initiating a service appointment. Moore is not concerned with additional services beyond the immediate repair of the vehicle, much less providing a customized service menu for the customer's review and selection. Consequently, Moore fails to disclose or suggest, among others:

- retrieving a dataset associated with the vehicle by querying a database as a function of said vehicle identifier, said data set having a vehicle service history and a service list, said service list having a plurality of service items as

a function of a mileage, the vehicle history, recommended maintenance, factory recall, and available service campaigns;

- transmitting said data set to the PDA; displaying said selected service items on the PDA; and
- obtaining user requested service items from said data set wherein the user requested service items are a subset of the data set.

For at least these reasons, Applicant respectfully submits that even if combined, the references fail to disclose or suggest each and every element of Claim 1. The remaining claims depend from Claim 1, either directly or indirectly, and are deemed patentable at least by the virtue of their dependence.

**B. The Claimed Invention is Not Predictable in View of Li and Moore**

When considering obviousness of a combination of elements, the operative question is “whether the improvement is more than the predictable use of the prior art elements according to their established functions.” *KSR Int’l Co. v. Teleflex Inc.*, 82 USPQ2d, 1385, 1396 (2007). If the improvement would not have been predicted from the combination of the prior art elements, the claimed invention is patentable.

The Office alleges that Li teaches all the elements of Claim 1 except for using a PDA for communicating between the customer and the service manager. The Office points to Moore for disclosing a PDA and concludes that it would have been obvious to combine the PDA of Moore to satisfy the missing element of Li. The Office’s reasoning is conclusory and incomplete.

To establish obviousness, the Examiner cites to Li and Moore for allegedly teaching each and every element of Claim 1. As stated, the references fail to disclose the claimed

elements. Even if, *arguendo*, the combined references were to teach each and every element of Claim 1, the Office must still show some level of predictability to avoid hindsight bias. See *id.* at 1389 (“A court must ask whether the improvement is more than the predictable use of the prior-art elements according to their established functions.”) Here, the claimed invention provides more than the predictable use of elements allegedly disclosed Li and Moore.

Neither reference contemplates providing a customized menu of possible services for the customer’s consideration. The elements disclosed in Li and Moore are provided for a different reasons all together. Li is concerned with pre-diagnosing the vehicle prior to the service appointments and Moore is concerned with remote data center initiating a service appointment. Thus, the elements disclosed in each reference is directed to and used for the intended purpose of each reference. Neither reference teaches providing a *customized menu of services* to the customer and allowing the customer to select one or more services. Therefore, it would not have been predictable to use the prior art elements according to each references’ teaching and arrive at Applicant’s claimed invention.

Accordingly, Applicant respectfully submits that the invention of Claim 1 and all claims depending therefrom are patentable over Li and Moore.

### **C. The Claimed Invention Satisfies *Grahams’* Factual Inquiry**

The objective criteria for determining patentability is stated in *Graham v. John Deere Co.* See 383 U.S. 1; 148 USPQ 459 (1966). *Graham’s* factual inquiry requires: (1) determining the scope and content of the prior art, (2) ascertaining the differences between the claimed invention and the prior art, and (3) resolving the level of ordinary skill in the pertinent art. The *Graham’s* factors weigh in Applicant’s favor.

The scope and the content of prior art is limited to scheduling a repair service either by the customer (per Li's disclosure) or by an external server (per Moore's disclosure). Both references are focused on addressing a pending electro-mechanical defect. As such, neither reference contemplates providing a menu of services to the customer and allow the client to select one or more service items from the menu.

The differences between Claim 1 and the references are several fold. For example, the references are directed to scheduling repair and maintenance with the service center while Claim 1 is directed to customizing a service menu. Scheduling a service time and location, whether done by the customer (per Li's disclosure) or by an external server (per Moore's disclosure) is not the same as selecting service items tailored for customer's particular vehicle.

Finally, one of ordinary skill in the art concerned with devising a more convenient way to schedule the customer's visit to the repair station would not have been concerned with customizing a service list or menu of available services for the customer's consideration.

For at least the reasons provided above, Applicant respectfully submit that Claim 1 and all other claims depending therefrom, either directly or indirectly, are patentable over the prior art of record. This appeal should be granted in favor of Applicant and claims 1, 4-5, 7-9, 13, 32-33 and 37-43 should be allowed.

Respectfully submitted,

**SNELL & WILMER L.L.P.**

Dated: NOV. 13, 2007



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## VIII. CLAIMS APPENDIX

1. A method for generating a repair order, comprising:
  - scanning vehicle identifier on a vehicle;
  - obtaining current vehicle mileage with a personal digital assistant (PDA);
  - transmitting the vehicle identifier and said current vehicle mileage over a wireless communication link;
  - retrieving a dataset associated with the vehicle by querying a database as a function of said vehicle identifier, said data set having a vehicle service history and a service list, said service list having a plurality of service items as a function of a mileage, the vehicle history, recommended maintenance, factory recall, and available service campaigns;
  - transmitting said data set to the PDA;
  - displaying said selected service items on the PDA;
  - obtaining user requested service items from said data set wherein the user requested service items are a subset of the data set; and
  - generating a repair order responsive to said user requested service items.
- 2-3. (Cancelled.)
4. The method of claim 1, wherein the vehicle identifier comprises a Vehicle Identification Number (VIN).
5. The method of claim 1, wherein said scanning the vehicle identifier comprises scanning a bar code indicative of the vehicle identifier.
6. (Cancelled.)

7. The method of claim 1, wherein the data set includes production information as a function of the vehicle identifier.

8. The method of claim 1, wherein the data set includes customer information as a function of the vehicle identifier.

9. The method of claim 1, wherein the data set includes warranty information as a function of the vehicle identifier.

10-12. (Cancelled.)

13. The method of claim 1, further comprising the step of updating the database with said current vehicle mileage.

14-31. (Cancelled.)

32. The method of claim 1 wherein said database further comprises a dealer management system.

33. The method of claim 1 wherein said database further comprises a dealer communication system.

34-36. (Cancelled.)

37. The method of claim 1 wherein generating a repair order includes creating a repair order in the PDA.

38. The method of claim 1 wherein said PDA is a Palm OS PDA.

39. The method of claim 1 wherein said PDA is a handheld PC.

40. The method of claim 1 wherein said PDA is a communication device.

41. The method of claim 1 wherein said PDA is a data processing device coupled to a wireless communication system.

42. The method of claim 1 wherein said PDA is a portable computer.

43. The method of claim 9, further comprising the steps of:  
generating a warranty covered service item for each of said service items that is covered by said warranty information;  
transmitting a list of said warranty covered service items to the PDA.



**IX. EVIDENCE APPENDIX**

No evidence to be submitted.

**X. RELATED PROCEEDINGS APPENDIX**

No related proceedings.